



# Femoropopliteal & Femorodistal Bypass

The femoral artery starts in the lower abdomen and runs down into the thigh. This artery delivers blood to your legs. When the femoral artery reaches the back of the knee it becomes the popliteal artery.

When there is a blockage in this artery, the circulation of blood to your leg is reduced which may cause you to have pain in your calf when you walk, is known as intermittent claudication. This operation should allow you to walk further without pain. This surgery is also recommended when the circulation is so poor that your foot is painful at rest or at night.

Another symptom indicating a possible blockage in the artery may be leg ulcers or black areas of dead skin. In such cases, this operation can be used to prevent the amputation of your leg below or above the knee.

A femoral popliteal bypass is an operation to bypass the blocked portion of the artery in the leg using a piece of another blood vessel.

The following information will help explain the process of a femoral popliteal bypass.

## BEFORE YOUR OPERATION

Before bypass surgery, there are a number of tests that need to be done, which include:

- An ultrasound scan of the blocked artery
- Ultrasound scan of the blocked artery
- Ultrasound assessment of the vein which will normally be used to perform the bypass

The course of the vein to be used for the bypass may be marked in your leg with an indelible pen. This marking is done with the assistance of ultrasound.

You will be visited by the Surgeon who will be performing your operation and also the doctor who will give you the anaesthetic. If you have any questions regarding the operation please ask the doctors.

## THE OPERATION

### The anaesthetic

The first part of the operation involves giving you an anaesthetic. This operation can be done with you asleep (general), or awake with the following anaesthetics:

- An spinal anaesthetic makes it so that you can feel nothing from waist downward on the operation side. The leg is paralysed. This anaesthetic lasts for about 2-2½ hours.
- An epidural again makes it so that you can feel nothing from waist downwards, and affects both legs. There is no paralysis however. The epidural is like a drip and can stay in for several days to provide post-operative pain relief.

### The operation

The blocked artery must be exposed both above and below the blockage. A vertical incision about 10cm (4inches) long is made in the groin to expose the common femoral artery. This is the main artery supplying the leg, and is usually where the bypass starts.

A second incision of similar length is made to expose the artery below the blockage. This may be just above or below the knee and is on the inner side of the leg. Occasionally, the incision is lower in the calf, and may then be on either side.

The tube used to perform the bypass will normally be the principal skin vein of the leg. It is called the long saphenous vein and it runs up the inner side of the leg from ankle to groin.

Helpfully the vein lies in the line of the incisions used to expose the artery. Sometimes the vein can be removed with the addition of another small

incision about 5cm long at mid thigh level. If the long saphenous vein is unavailable, its counterpart in the other leg or a vein from the arm may be used instead. If no vein is suitable, an artificial tube is used.

The bypass tube is joined to the artery at groin level and again to the artery below with very fine permanent stitches.

The graft will sometimes lie deep within the leg, and sometimes just beneath the skin. If it is beneath the skin (in situ vein bypass) the pulse in it can easily be felt.

At the end of the operation, the incisions are all closed either with dissolving stitches, which do not need to be removed, or with a non-dissolving stitch or metal clips which will normally be removed after about ten days.

## AFTER THE OPERATION

After your operation you will be given fluids by a drip in one of your veins until you are well enough to sit up and take fluids and food by mouth.

The nurses and doctors will try and keep you free of pain by giving pain killers by injection, via the epidural tube in your back, or by a machine that you are able to control yourself by pressing a button. It is likely that you will experience bruising around the area operated on.

You will become gradually more mobile until you are fit enough to go home. You may be visited by the physiotherapists after your operation. They will help you with your breathing to prevent you developing a chest infection and with your mobilisation to get you walking again.

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You may be given aspirin (or in some cases warfarin) to reduce the risk of your bypass blocking. This will usually be continued indefinitely.

An outpatients appointment will be given to you before you are discharged home.

## GOING HOME AND AFTERCARE

If your stitches or clips are of the type that needs removing, this is usually done whilst you are still in hospital. If not, we will arrange for your GP's practice or district nurse to remove them and check your wound. If there is any swelling or discharge from the wound when you are at home, please contact your GP.

You may feel tired for some weeks after the operation but this should gradually improve as time goes by. Most people are back to work six weeks after the operation.

Please ask staff if you require a sick certificate for work and this will be given to you before you leave hospital. If you require a longer time off work that is indicated on the certificate your GP can provide you with an additional certificate.

You should be able to gradually resume normal activities when you feel well enough. Avoid heavy lifting and frequent stretching at first.

Regular exercise such as a short walk combined with rest is recommended for the first few weeks following surgery followed by a gradual return to your normal activity.

You will be safe to drive when you are able to perform an emergency stop. This will normally be 2-4 weeks after surgery, but if in doubt check with your own doctor.

You will usually be sent home on a small dose of aspirin if you were not already taking it. This is to make the blood less sticky. If you are unable to tolerate aspirin an alternative drug may be prescribed.

## COMPLICATIONS

**Wound infection:** Wounds sometimes become infected and this may need treatment with antibiotics. Bad infections are rare. Occasionally, the incision may need to be cleaned out under anaesthetic.

**Graft infection:** Very rarely (about 1 in 500), the artificial graft may become infected. This is a serious complication, and usually treatment involves removal of the graft.

**Fluid leak from wound:** Occasionally the wound may leak fluid. This may be clear but is usually blood stained. It normally settles in time, and does not usually indicate a problem with the bypass itself.

**Bypass blockage:** The main specific complication of this operation is blood clotting within the bypass causing it to block. If this occurs it will usually be necessary to perform another operation to clear the bypass.

**Limb swelling:** It is normal for the leg to swell after this operation. The swelling usually lasts for about 2-3 months. It normally goes virtually completely, but may occasionally persist indefinitely.

**Skin sensation:** You may have patches of numbness around the wound or lower down the leg which is due to the inevitable cutting small nerves to the skin. This can be permanent but usually gets better within a few months.

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## WHAT CAN I DO TO HELP MYSELF?

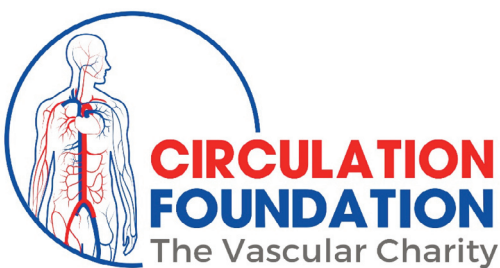
If you were previously a smoker you must make a sincere and determined effort to stop completely. Continued smoking will cause further damage to your arteries and your bypass is more likely to stop working.

General health measures such as reducing weight, a low fat diet and regular exercise are also important.

If you develop sudden pain or numbness in the leg which does not get better within a few hours then contact your GP or the hospital immediately.

You may be asked to attend the hospital at intervals after the operation (usually 3 monthly at the start) to have an ultrasound scan of your bypass. This is to ensure that it is working well, and that there is no narrowing of the bypass which might lead on to bypass blockage.

Whilst we make every effort to ensure that the information contained in this patient information sheet is accurate, it is not a substitute for medical advice or treatment, and the Circulation Foundation recommends consultation with your doctor or health care professional. The information provided is intended to support patients, not provide personal medical advice. The Circulation Foundation cannot accept liability for any loss or damage resulting from any inaccuracy in this information or third party information such as information on websites to which we link.



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